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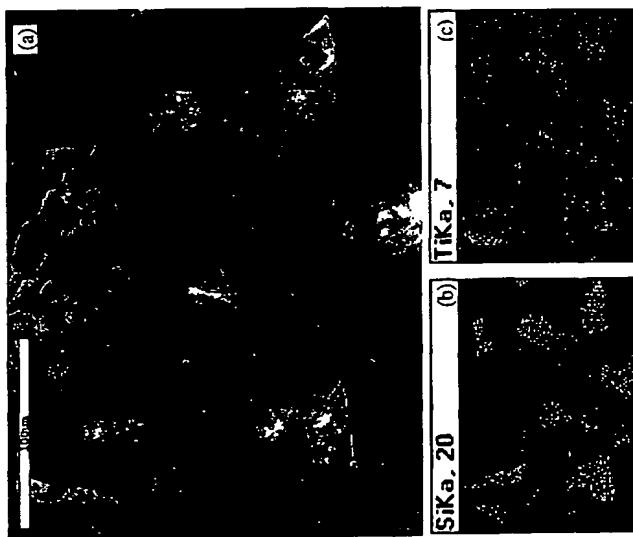
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(54) Title: METHOD AND A COMPOSITE FOR MERCURY CAPTURE FROM FLUID STREAMS



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(57) Abstract: A method for removing mercury from a fluid stream includes the steps of providing a porous composite material comprising a substrate and a plurality of catalyst and/or photocatalyst particles, and contacting substrate with a fluid stream. The porous composite material adsorbs and/or then oxidizes or reduces metallic species including elemental mercury. A fossil fuel fired power plant can include an emission control device comprising the porous composite material to filter flue gas to and thereby minimize mercury emissions into the environment.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/06597

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01D 15/00; B01J 21/08; C02F 1/28, 1/72
 US CL : 210/670, 679, 688, 748, 763, 914; 502/242, 250

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 210/670, 679, 688, 721, 748, 763, 914; 502/239, 242, 250

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,946,596 A (FURUTA et al.) 07 August 1990, entire document.	1-3, 8 and 9
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Y		4, 5 and 11-14
X	US 4,786,483 A (AUDEH) 22 November 1988, col. 1, lines 51 and 54.	15, 22 and 24
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Y		23
X	US 3,925,247 A (OGURA et al.) 09 December 1975, col. 2, lines 53, 54, 62 and 63.	15-17 and 24
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Y		23
Y	US 6,013,187 A (BURNS et al.) 11 January 2000, entire document.	4, 5, 20 and 21
A, P	US 6,632,771 B1 (MAEKAWA et al.) 14 October 2003, entire document.	10 and 19

Further documents are listed in the continuation of Box C.

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